SNOWSHOE MAKING:

By Frank Goblé, Waterton Park, Alberta

Materials needed:

A. *Hardwood.* Birch or Ash. A 10-foot three-quarter-inch by 10-inch board will be sufficient material for 9 pairs of frames 5 feet long.

B. *Rawhide.* Deer, Elk, Moose, Caribou, or Cowhide, with the hair removed. To remove the hair, soak in warm water with lye or wood ashes until the hair slips or pulls out easily.

C. *Stove Bolts.* 3 3-inch stove bolts for each snowshoe — 3″ x ⅛″.

D. *Old Boot tops,* straps, rivets for harness.

Note: Metal frames may be made by using ½″ Thin-wall tubing of the type used by electricians when wiring commercial or public buildings. One 10-foot length of tubing will make 1 pair of Bear-paw type frames.

To make the frames: Rip the board into strips ¾″ x ½″ and the desired length. Shape the frames with a small plane. They should be narrower or thinner at the spots where they will be bent into shape. The toe section should be thinned down on the top and on the insides; the heel section should be thinned on the inside only. Do not mortise the grooves for the cross-bars until after the frames have been removed from the press.

After the frames are shaped, soak or steam them in hot water until they will bend easily. (Use an old wash-boiler, or a piece of pipe which has been sealed on one end.)

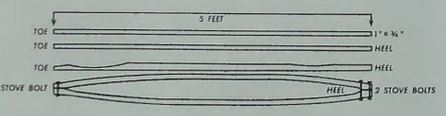


FIG. 1

When the frames will bend easily, bolt them together, one stove bolt at the toe, and 2 at the heel, and place them in the press that is drawn on Figure 2 shown below. This simple press is made by using a piece of 2″ x 1″ material, about 2 feet or more in length, 2 pieces of 1″ x 2″ material to go on either side of the toe, and a 1″ x 4″ piece of material to go over the toe, and help

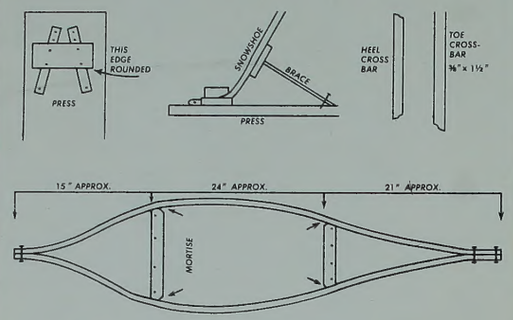


FIG. 2

control the bend. Insert the toe of the frame between the 1″ x 2″s, and raise the heel carefully until the desired bend is reached. Wedge the frame in that position, and let it dry. Make sure that the two frames have the same bend or amount of turn up. When dry remove from the press, fit the cross-pieces, sand the frames, and give them a coat of varnish or shellac. **Note: A spreader of the desired width should be wedged in each frame before they are placed in the press.** The cross-pieces are made from hardwood, three-eighths of an inch thick by 1½ inches in width, and the desired length — the length of the cross-piece governs the width of the snow-shoe. The front cross-piece should be longer than the rear one.

The next step is to drill the holes for the lanyards. These holes are drilled in pairs, each pair being about

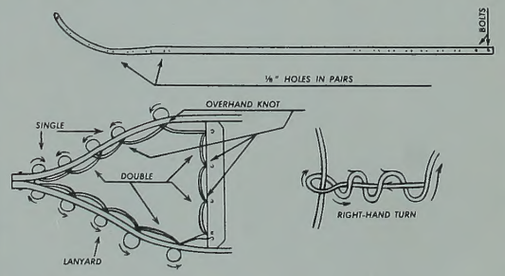


FIG. 3

2 inches from the next pair, and a pair being about ½-inch apart. A groove is cut to join each pair, just deep enough to allow the lanyard to be flush with the frame. These holes are drilled in both the heel and the toe portions of the snow-shoe, and in the cross-bars.

The lanyards should now be placed in the toes and heels of the shoe. To do this, 2 pieces of rawhide, small enough so that one strip can be drawn through the holes drilled for this purpose are used. One end of each strip is fastened to the left-hand hole in the cross-bar by slitting that end, and drawing the other end through the slit.

(Only one strip of rawhide is actually drawn through the lanyard holes, the other one is tied in through the overhand knot made at each set of holes.) Now take the end of one of the lanyard strips, thread it through the second hole of the first pair, draw it back through the first hole of the pair, and tie an overhand knot around **both** lanyard strips. This process is repeated at each pair of holes, except at the toe and heel the lanyard is drawn through the first of the pair of holes, back through the second and straight across through the second of the pair of holes in the other side of the frame. The first process is then repeated down the crossbar. Here there is only one hole, not a pair, and an overhand knot is tied around both lanyard strips after threading one through the single hole. When the starting point is reached, the ends are tied off using a Clove Hitch. The snow-shoes are now ready to be webbed. The heel and toe webbing is done first.

The heel and toe webbing is done in exactly the same manner, and started at the same relative spot on the frame: when the toe, or heel, is held uppermost, the starting point is at the right-hand end of the crossbar (see diagram). The hide used for the toe and heel webbing should be at least ¼ inch in width before stretching.

Once again, the end is slit, and the other end threaded through. The strip is then passed across the snowshoe parallel to the crossbar, and around the lanyard on the left side. **It is important that a right-hand turn be made each time when coming back** off the lanyard, that is, from left to right around the strip of webbing. From this point, the webbing is carried to the toe (or heel), of the shoe, a right-hand turn with several turns around itself being made, and thence down to the lanyard to the left of the starting point, where once again a right-hand turn with at least three wraps is made. From here the webbing is carried to the lanyard on the right side of the shoe, around the lanyard with a right-hand turn, wrapped twice around itself, and then carried across to the left side of the frame, parallel to the first strip of

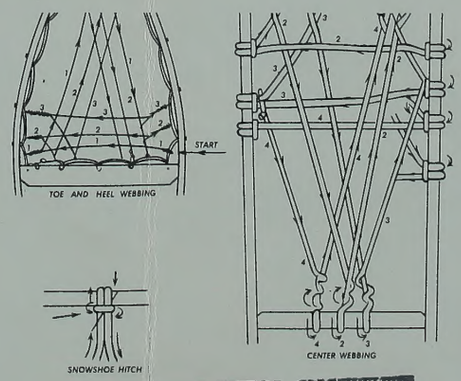
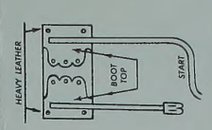


FIG. 4



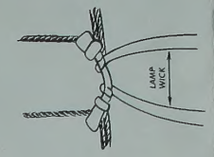


FIG. 5

webbing. From here it is brought down to the lanyard in the crossbar, and from there up to the right side of the toe, but down from the spot where the first webbing was fastened. It then crosses over to the left side, and is brought down to the lanyard on the crossbar to the left of Number 1 (see the diagram). This process is repeated until the filling is all in.

The hide for the webbing for the centre filling is much wider than for the toe and heel. It should be cut about ¾ of an inch in width. The centre webbing is started from the right side of the frame, and far enough back from the crossbar so that the toe of the boot of the person wearing the snow-shoe can dip down through the hole without touching the crossbar.

Once again, slit the end of the strip of centre webbing, and draw the other end through. Make 2 complete turns around the snow-shoe, from one side to the other, at this point. This will give 4 strands of webbing across the shoe. On the last turn, a false Clove or Snow-shoe Hitch is made, first on the left side, and then on the right side. From the right side the webbing is brought down about an inch, passed around the frame, and the Snow-shoe Hitch made, with the free end being on the side to the toe crossbar. It is then taken up over the crossbar, a Snow-shoe made after making 2 turns around the crossbar, and it is then wrapped around itself down to the first set of cross-webbing. (Note: instead of making 2 turns around the crossbar, the webbing can be taken down around the first set of cross-webbing, and then back around the crossbar before the snow-shoe hitch is made, after which

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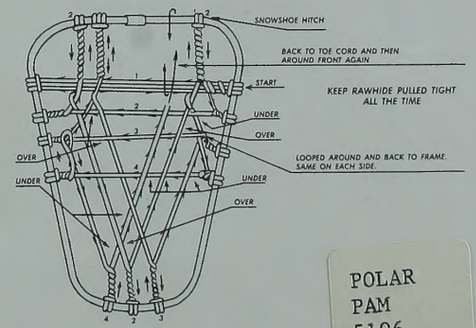

FIG. 6

it is wrapped around itself). It is then taken to the centre of the rear crossbar, brought back, with a right-hand turn and 3 twists, brought up to the left side of the toe-opening, over the toe-crossbar, the same process repeated as for the opposite side of the toe-opening. From here it is brought down to the left side of the frame, around twice and tied with a snowshoe hitch, and then across to the opposite side of the shoe. This process is repeated until the webbing is filled in completely.

To make Bear Paw Snowshoes:

Materials: 1 10-foot length of ½-inch thin-wall electrician's tubing, 2 ½-inch thin-wall tubing couplings, sufficient raw-hide to web the shoes.

Tools: An electrician's pipe bender, an electrician's ½-inch crimper.

Method: To make a pair of frames 16″ wide by 23″ long: Cut the 10-foot length of tubing in half. Mark the centre of the halves. With the pipe bender bend the tubing into the shape of a Bear-Paw frame with the 2 ends at the front or toe of the frame. Slide the couplings over the ends, and crimp into place with the crimper. The frame is now complete.

Webbing: The webbing is the same as that for the centre filling of the trail snowshoes, except that one or two additional turns are made around the rawhide strip when coming back off the frame. It is also necessary to loop a strip of rawhide across the top of the toe stays to prevent them from sliding sideways.

When the webbing is complete, allow it time to dry completely, and then give several coats of good varnish. Varnish the rawhide each time the snowshoes are used.

After the filling in the snowshoe is in, start at the left-hand side of the toe cord with a strip of rawhide, wrap around the toe cord to the first toe stay, up the toe stay, across to the second toe stay, to the centre of the frame between the toe stays, across to the next toe stay, around it once, across to the last toe-stay, down it to the toe cord, and around the toe cord back to the starting point on the left side, where it is tied off with a Clove Hitch.